

**UNIVERSITY OF SWAZILAND  
DEPARTMENT OF GEOGRAPHY, ENVIRONMENTAL SCIENCE AND  
PLANNING**

**FINAL EXAMINATION : DECEMBER, 2007  
B.Sc. IV**

**TITLE OF PAPER : WATER RESOURCES PLANNING**

**COURSE NUMBER : GEP 421**

**TIME ALLOWED : THREE (3) HOURS**

**INSTRUCTIONS : SECTION A IS COMPULSORY  
ANSWER ANY TWO QUESTIONS FROM  
SECTION B  
ILLUSTRATE YOUR ANSWERS WITH  
APPROPRIATE DIAGRAMS**

**MARKS ALLOCATED : QUESTION 1 CARRIES 40 MARKS  
THE OTHER QUESTIONS CARRY 30  
MARKS EACH**

**THIS PAPER IS NOT TO BE OPENED UNTIL PERMISSION HAS BEEN GRANTED  
BY THE INVIGILATOR**

**SECTION A: COMPULSORY QUESTION**

**QUESTION 1**

Compare and contrast riparianism and prior appropriation in water law. (40 marks)

**SECTION B: ANSWER ANY TWO QUESTIONS**

**QUESTION 2**

Discuss the concept 'Water is an economic good'. (30 marks)

**QUESTION 3**

Explain the steps required in the planning of a water resource project. (30 marks)

**QUESTION 4**

- (a) Compare and contrast planning and management in the sector of water resources. (15 marks)
  - (b) Discuss flood mitigation measures. (15 marks)
- (30 marks)

**QUESTION 5**

Explain the differences between aerobic and facultative lagoons. (30 marks)